

REMARKS

Claims 13-18 were pending in the application prior to this response. Claims 13 and 17 have been amended herein; claim 16 has been canceled. Claims 14, 15 and 18 remain in the application unchanged. Reexamination and reconsideration are requested.

I. The Examiner has Applied an Unnecessary Number of References

In paragraphs 5-9 of the Office action, the Examiner applies three references under 35 U.S.C. §102(b) and two references under 35 U.S.C. 102(a). The Examiner also, in paragraph 11, applies an additional reference under 35 U.S.C. §103(a). The Examiner, thus, has applied a total of six alternative references to the same group of claims (i.e., claims 13-18).

The Examiner's use of such a large number of references is clearly contrary to the rules and procedures mandated by the Code of Federal Regulations:

§ 1.104 NATURE OF EXAMINATION

...

(c) REJECTION OF CLAIMS

...

(2) In rejecting claims for want of novelty or for obviousness, the examiner **must** cite the **best** references at his or her command.

(37 CFR 1.104(c)(2), emphasis added)

The Manual of Patent Examining Procedure further addresses this issue, for example, as follows:

In selecting the references to be cited, the examiner should carefully compare the references with one another and with the applicant's *disclosure to avoid the citation of an unnecessary number*. The examiner is not called upon to cite *all* references that may be available, but **only the "best."** (37 CFR 1.104(c).) **Multiplying references**, any one of which is as good as, but no better than, the others, **adds to the burden and cost of prosecution** and should therefore be avoided. The examiner must fully consider all the prior art references cited in the application, including those cited by the applicant in a properly submitted Information Disclosure Statement.

The best reference should always be the one used. Sometimes the best reference will have a publication date less than a year prior to the application filing date, hence it will be open to being overcome under 37 CFR 1.131. In these cases, if a second reference exists which cannot be so overcome and which, though inferior, is an adequate basis for rejection, the claims should be *additionally* rejected thereon.

(MPEP 904.03, italics in original; other emphasis added)

The application of such a large number of references by the Examiner has proven to be extremely burdensome and costly for applicant. Accordingly, applicant respectfully requests, that in all future actions, the Examiner comply with 37 CFR 1.104 and the MPEP by applying only the best reference or references.

II. Legal Basis for Prior Art Claim Rejections Applied in the Office Action

Anticipation under 35 U.S.C. §102

The standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. 102 is one of strict

identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Obviousness Under 35 U.S.C. §103

The test for obviousness under 35 U.S.C. 103 is whether the claimed invention would have been obvious to those skilled in the art in light of the knowledge made available by the reference or references. *In re Donovan*, 184 USPQ 414, 420, n. 3 (CCPA 1975). It requires consideration of the entirety of the disclosures of the references. *In re Rinehart*, 189 USPQ 143, 146 (CCPA 1976). All limitations of the Claims must be considered. *In re Boe*, 184 USPQ 38, 40 (CCPA 1974). In making a determination as to obviousness, the references must be read without benefit of applicants' teachings. *In re Meng*, 181 USPQ 94, 97 (CCPA 1974). In addition, the propriety of a Section 103 rejection is to be determined by whether the reference teachings appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed substitution, combination, or other modifications. *In re Lintner*, 173 USPQ 560, 562 (CCPA 1972).

In the case of *In re Wright*, 6 USPQ 2d 1959 (CAFC 1988), the CAFC decided that the Patent Office had improperly combined references which did not suggest the properties and results of the applicants' invention nor suggest the claimed combination as a solution to the problem which applicants' invention solved.

The CCPA reached this conclusion after an analysis of the prior case law, at p. 1961:

We repeat the mandate of 35 U.S.C. 103: it is the invention as a whole that must be considered in obviousness determinations. The invention as a whole embraces the structure, its properties, and the problem it solves. See, e.g., *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025, 226 USPQ 881, 886 (Fed. Cir. 1985) ("In evaluating obviousness, the hypothetical person of ordinary skill in the pertinent art is presumed to have the 'ability to select and utilize knowledge from other arts reasonably pertinent to [the] particular problem' to which the invention is directed"), quoting *In re Antle*, 444 F.2d 1168, 1171-72, 170 USPQ 285, 287-88 (CCPA 1971); *In re Antonie*, 559 F.2d 618, 619, 195 USPQ 6, 8 (CCPA 1977) ("In delineating the invention as a whole, we look not only in the claim in question... but also to those properties of the subject matter which are inherent in the subject matter and are disclosed in the specification") (emphasis in original).

The determination of whether a novel structure is or is not "obvious" requires cognizance of the properties of that structure and the problem which it solves, viewed in light of the teachings of the prior art. See, e.g., *In re Rinehart*, 531 F.2d 1048, 1054, 189 USPQ 143, 149 (CCPA 1976) (the particular problem facing the inventor must be considered in determining obviousness); see also *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984) (it is error to focus "solely on the product created, rather than on the obviousness or notoriousness of its creation") (quoting *General Motors Corp. v. U.S. Int'l Trade Comm'n*, 687 F.2d 476, 483, 215 USPQ 484, 489 (CCPA 1982), cert. denied, 459 U.S. 1105 (1983)).

Thus the question is whether what the inventor did would have been obvious to one of ordinary skill in the art attempting to solve the problem upon which the inventor was working. *Rinehart*, 531 F.2d at 1054, 189 USPQ at 149; see also *In re Benno*, 768 F.2d 1340, 1345, 226 USPQ 683, 687 (Fed. Cir. 1985) ("appellant's problem" and the prior art present different problems requiring different

solutions").

A basic mandate inherent in Section 103 is that a piecemeal reconstruction of prior art patents shall not be the basis for a holding of obviousness. It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *In re Kamm*, 172 USPQ 298, 301-302 (CCPA 1972). Phrased somewhat differently, the fact that inventions of the references and of applicants may be directed to concepts for solving the same problem does not serve as a basis for arbitrarily choosing elements from references to attempt to fashion applicants' claimed invention. *In re Donovan*, 184 USPQ 414, 420 (CCPA 1975).

It is also clearly established in the case law that a change in the mode of operation of a device which renders that device inoperative for its stated utility as set forth in the cited reference renders the reference improper for use to support an obviousness-type rejection predicated on such a change. See, e.g., *Diamond International Corp. v. Walterhoefer*, 289 F.Supp. 550, 159 USPQ 452, 460-61 (D.Md. 1968); *Ex parte Weber*, 154 USPQ 491, 492 (Bd.App. 1967). In addition, any attempt to combine the teaching of one reference with that of another in such a manner as to render the invention of the first reference inoperative is not permissible. See, e.g., *Ex parte Hartmann*, 186 USPQ 366 (Bd.App. 1974); and *Ex parte Sternau*, 155 USPQ 733 (Bd.App. 1967).

A reference which teaches away from the applicants' invention may not properly be used in framing a 35 U.S.C. 103 rejection of applicants' claims. See *United States*

v. Adams, 148 USPQ 429 (Sup. Ct. 1966).

**III. 35 U.S.C. §102(b) Rejection of Claims 13-18 Over
Muraoka et al.**

Claims 13-18 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by Muraoka et al. (U.S. 4,095,095). Reexamination and reconsideration of the Examiner's rejection are requested.

Claim 13, as amended herein, recites the following:

A manufacturing system for manufacturing integrated circuit devices comprising:

at least a first manufacturing machine;

a human interface device including:

at least a first station associated therewith;

at least a first display device located adjacent said first station; and

at least a first scanning device located adjacent said first station;

a first controller operatively connected to both said first display device and said first scanning device;

a second controller operatively connected to said at least a first manufacturing machine;

a data link connecting said first controller and said second controller;

at least a second station associated with said human interface device;

at least a second display device located adjacent said at least a second station;

at least a second scanning device located adjacent said second station;

wherein said first controller is operatively attached to both said second display device and said second scanning device; and

wherein said first display device indicates to a human user when to move an object from said first station to said second station.

Claim 13 has been amended herein to add the language underlined above. Much of this added language derives from dependent claim 16 which has been canceled. The following language added to claim 13, however, is not from dependent claim 16:

wherein said first display device indicates to a human user when to move an object from said first station to said second station.

This language is fully supported by applicant's originally-filed application. No new matter has been added. The language is supported, for example, with reference to applicant's drawing Fig. 8 and applicant's written specification at page 29, lines 20-23 where the following is set forth:

The green light on the display device 214, as illustrated in Fig. 8, indicates to a human operator that the lot box 1 may now be moved to the next position, i.e., the nest 242.

Claim 17 has been amended to depend from claim 13 rather than from canceled claim 16.

Claim 13, thus, now requires at least two stations (each having a scanning device and a display device) and that the first display device "indicates to a human user when to move an object from said first station to said second station". Muraoka et al. clearly fails to disclose all of the elements of claim 13, as amended. Accordingly, claim 13, as amended herein, is not anticipated by Muraoka et al. As discussed previously, the standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. 102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Claims 14, 15, 17 and 18 are allowable at least at depending from allowable base claim 13. Claim 16 has been canceled.

IV. 35 U.S.C. §102(b) Rejection of Claims 13-18 Over Fukasawa

Claims 13-18 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by Fukasawa (U.S. 4,930,086). Reexamination and reconsideration of the Examiner's rejection are requested.

As noted above, with respect to the rejection over Muraoka et al., claim 13 has been amended herein to now recite the following:

A manufacturing system for manufacturing integrated circuit devices comprising:

at least a first manufacturing machine;
a human interface device including:
 at least a first station associated therewith;
 at least a first display device located
adjacent said first station; and
 at least a first scanning device located
adjacent said first station;
a first controller operatively connected to both
said first display device and said first scanning device;
a second controller operatively connected to said at
least a first manufacturing machine;
a data link connecting said first controller and
said second controller;
at least a second station associated with said human
interface device;
at least a second display device located adjacent
said at least a second station;
at least a second scanning device located adjacent
said second station;
wherein said first controller is operatively
attached to both said second display device and said
second scanning device; and
wherein said first display device indicates to a
human user when to move an object from said first station
to said second station.

Claim 13, thus, now requires at least two stations (each having a scanning device and a display device) and that the first display device "indicates to a human user when to move an object from said first station to said second station". Fukasawa clearly fails to disclose all of the elements of claim 13, as amended. Accordingly,

claim 13, as amended herein, is not anticipated by Fukasawa. As discussed previously, the standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. 102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Claims 14, 15, 17 and 18 are allowable at least at depending from allowable base claim 13. Claim 16 has been canceled.

V. 35 U.S.C. §102(b) Rejection of Claims 13-18 Over Barnett

Claims 13-18 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by Barnett (U.S. 5,432,702). Reexamination and reconsideration of the Examiner's rejection are requested.

As noted above, with respect to the rejection over Muraoka et al., claim 13 has been amended herein to now recite the following:

A manufacturing system for manufacturing integrated circuit devices comprising:

at least a first manufacturing machine;

a human interface device including:

at least a first station associated therewith;

at least a first display device located adjacent said first station; and

at least a first scanning device located adjacent said first station;

a first controller operatively connected to both
said first display device and said first scanning device;
a second controller operatively connected to said at
least a first manufacturing machine;

a data link connecting said first controller and
said second controller;

at least a second station associated with said human
interface device;

at least a second display device located adjacent
said at least a second station;

at least a second scanning device located adjacent
said second station;

wherein said first controller is operatively
attached to both said second display device and said
second scanning device; and

wherein said first display device indicates to a
human user when to move an object from said first station
to said second station.

Claim 13, thus, now requires at least two stations
(each having a scanning device and a display device) and
that the first display device "indicates to a human user
when to move an object from said first station to said
second station". Barnett clearly fails to disclose all
of the elements of claim 13, as amended. Accordingly,
claim 13, as amended herein, is not anticipated by
Barnett. As discussed previously, the standard for lack
of novelty, that is, for "anticipation," under 35 U.S.C.
102 is one of strict identity. To anticipate a claim for
a patent, a single prior source must contain all its
essential elements. *Hybritech, Inc. v. Monoclonal
Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Claims 14, 15, 17 and 18 are allowable at least at depending from allowable base claim 13. Claim 16 has been canceled.

VI. 35 U.S.C. §102(a) Rejection of Claims 13-18 Over Wu et al.

Claims 13-18 stand rejected under 35 U.S.C. §102(a) as being clearly anticipated by Wu et al. (U.S. 5,668,056). Reexamination and reconsideration of the Examiner's rejection are requested.

As noted above, with respect to the rejection over Muraoka et al., claim 13 has been amended herein to now recite the following:

A manufacturing system for manufacturing integrated circuit devices comprising:

at least a first manufacturing machine;

a human interface device including:

at least a first station associated therewith;

at least a first display device located adjacent said first station; and

at least a first scanning device located adjacent said first station;

a first controller operatively connected to both said first display device and said first scanning device;

a second controller operatively connected to said at least a first manufacturing machine;

a data link connecting said first controller and said second controller;

at least a second station associated with said human interface device;

at least a second display device located adjacent
said at least a second station;

at least a second scanning device located adjacent
said second station;

wherein said first controller is operatively
attached to both said second display device and said
second scanning device; and

wherein said first display device indicates to a
human user when to move an object from said first station
to said second station.

Claim 13, thus, now requires at least two stations (each having a scanning device and a display device) and that the first display device "indicates to a human user when to move an object from said first station to said second station". Wu et al. clearly fails to disclose all of the elements of claim 13, as amended. Accordingly, claim 13, as amended herein, is not anticipated by Wu et al. As discussed previously, the standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. 102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Claims 14, 15, 17 and 18 are allowable at least at depending from allowable base claim 13. Claim 16 has been canceled.

**VII. 35 U.S.C. §102(a) Rejection of Claims 13-18 Over
Asai et al.**

Claims 13-18 stand rejected under 35 U.S.C. §102(a) as being clearly anticipated by Asai et al. (U.S. 5,692,292). Reexamination and reconsideration of the Examiner's rejection are requested.

As noted above, with respect to the rejection over Muraoka et al., claim 13 has been amended herein to now recite the following:

A manufacturing system for manufacturing integrated circuit devices comprising:

at least a first manufacturing machine;

a human interface device including:

at least a first station associated therewith;

at least a first display device located adjacent said first station; and

at least a first scanning device located adjacent said first station;

a first controller operatively connected to both said first display device and said first scanning device;

a second controller operatively connected to said at least a first manufacturing machine;

a data link connecting said first controller and said second controller;

at least a second station associated with said human interface device;

at least a second display device located adjacent said at least a second station;

at least a second scanning device located adjacent said second station;

wherein said first controller is operatively

attached to both said second display device and said second scanning device; and

wherein said first display device indicates to a human user when to move an object from said first station to said second station.

Claim 13, thus, now requires at least two stations (each having a scanning device and a display device) and that the first display device "indicates to a human user when to move an object from said first station to said second station". Asai et al. clearly fails to disclose all of the elements of claim 13, as amended.

Accordingly, claim 13, as amended herein, is not anticipated by Asai et al. As discussed previously, the standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. 102 is one of strict identity. To anticipate a claim for a patent, a single prior source must contain all its essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986).

Claims 14, 15, 17 and 18 are allowable at least at depending from allowable base claim 13. Claim 16 has been canceled.

VIII. 35 U.S.C. §103(a) Rejection of Claims 13-18

Claims 13-18 stand rejected under 35 U.S.C. §103(a) as being obvious over Saka et al. (U.S. 5,434,790). Reexamination and reconsideration of the Examiner's rejection are requested.

The Examiner states the following on page 4 of the

Office action:

However, Saka et al. Do not specify that the production system is necessarily one for manufacturing integrated circuit devices, including using wafer stepper and resist spin track machines, as instantly claimed.

The Examiner, thus, admits that Saka et al. fails to suggest all of the limitations of applicant's claim 13 but takes the position, nevertheless, that these limitations would be obvious. It is, thus, apparent, that neither Saka et al. nor any of the other references of record provide any teaching, whatsoever, of applicant's integrated circuit device manufacturing system as recited in claim 13. Applicant's use of a such a system is not a matter within the knowledge of a person of ordinary skill in the art and the Examiner has submitted no evidence to the contrary. Accordingly, there is absolutely nothing in the file history of this prosecution to support the Examiner's statement. There must be something in the teachings of cited references to suggest to an individual skilled in the art that a claimed invention would be obvious. *W. L. Gore and Associates v. Garlock, Inc.*, 220 USPQ 303, 311 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). "There must be a reason or suggestion in the art for selecting the procedure used, other than the knowledge learned from the applicant's disclosure." *In re Dow Chemical Co.*, 5 USPQ2d 1529, 1532 (Fed. Cir. 1988).

Further, as noted above, with respect to the 35 U.S.C. §102(b) rejection over Muraoka et al., claim 13 has been amended herein to now recite the following:

A manufacturing system for manufacturing integrated circuit devices comprising:

at least a first manufacturing machine;

a human interface device including:

at least a first station associated therewith;

at least a first display device located adjacent said first station; and

at least a first scanning device located adjacent said first station;

a first controller operatively connected to both said first display device and said first scanning device;

a second controller operatively connected to said at least a first manufacturing machine;

a data link connecting said first controller and said second controller;

at least a second station associated with said human interface device;

at least a second display device located adjacent said at least a second station;

at least a second scanning device located adjacent said second station;

wherein said first controller is operatively attached to both said second display device and said second scanning device; and

wherein said first display device indicates to a human user when to move an object from said first station to said second station.

Claim 13, thus, now requires at least two stations (each having a scanning device and a display device) and that the first display device "indicates to a human user when to move an object from said first station to said

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second station". Saka et al. clearly fails to disclose or suggest all of the elements of claim 13, as amended.

Accordingly, claim 13, as amended herein, is not obvious over Saka et al.

Claims 14, 15, 17 and 18 are allowable at least at depending from allowable base claim 13. Claim 16 has been canceled.

In view of the above, all of the claims are now believed to be in condition for allowance. Re-examination and reconsideration are requested.

Respectfully submitted,

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